

Remarks
submitted October 2010

1. This is in Response to the Office Action dated 15 July 2010.

2. Amendments

Please enter the attached amended claims. Claim 10 is amended.

The amendments introduce no new subject matter.

The formats of claims 1,13,14 has been changed, by substituting letters for indents, to better indicate the linking of the clauses. No changes have been made to the text of these claims.

3. Rejection of claim 1 under 1st § of '112 -- sect.4a of the O/A

Claim 1 contains references to a rad-port-thermal-unit that has several components, and to a swirl-vane-thermal-unit, which also has several components. As described in our specification, we prefer to use a common thermal-unit as both our rad-port-thermal-unit and our swirl-vane-thermal-unit.

Claim 1 covers that preferred case, but also covers the case where the two thermal-units are formed as physically separate and distinct structures. That is to say: we deliberately worded claim 1 so as NOT to include a limitation to the two thermal-units being physically separate.

Dependent claim 5 (and sub-dependent claims 13-19) are limited to some of the components of our two thermal-units being combined. Claim 6 is of similar effect regarding some other combined components.

By contrast, dependent claim 20 (and sub-dependent claim 21) are limited to some of the components of our two thermal-units being physically separate.

Dependent claim 22 (and sub-dependent claims 23,24) are limited to our two thermal-units being combined in a common thermal-unit.

4. The 1st § of 35.USC.112 requires that the specification must contain enough information to enable the skilled persons to make and use the invention (i.e the invention as *actually claimed*). If any feature recited as a positive limitation of claim 1 is not described /depicted in an enabling manner in the spec, the enablement requirement is not

met, and the claim must be rejected. However, the 1st § of 35.USC.112 does NOT require that EVERY embodiment of a claim must be described in the spec -- only that ONE embodiment be described.

5. In section 4a of the O/A, the examiners make several observations about *distinct separation* of our thermal-units and the components thereof, of which two examples are:

There is no embodiment disclosed that comprises separate and distinct components directed to each of the elements claimed

The swirl vanes are the radiator-port-closer so therefore the embodiment does not teach separate thermal units for a radiator-port-closer and a set of swirl vanes.

It is clear from these, and from the many similar references in the O/A, that the examiners have formed the view that '112 1st § requires the following:

where a claim defines two structural elements, the examiners must reject the claim unless there is depicted in the spec an apparatus in which the two structural elements are physically separate and distinct.

Insofar as this is the examiners' view, it is mistaken. Claim 1 (like claims 5,6,22) is NOT limited by the feature that our two thermal-units, and the components thereof, must be separate and distinct.

We will agree that the enablement requirement of 35.USC.112 1st § requires of each claim that all the limitations recited in the claim must be present, in purposeful combination, in one single depicted embodiment. However, '112 1st § cannot, and does not, impose any requirements in respect of any feature that is NOT a limitation of the claim. And separation of the thermal-units, and the components thereof, is simply not a limitation of claim 1.

Our claim 1 covers the three cases, being: 1) our two thermal-units are combined in a single common thermal-unit; 2) our two thermal-units are provided in physically separate thermal-units; and 3) some of the components of our two thermal-units are combined and others are separated. There simply is no expressed or implied limitation, in claim 1, that would or might exclude any one of those cases from the scope of claim 1.

The examiners have erred in construing claim 1 as though it included such a limitation. We request that the rejections under 1st § of '112 be reconsidered and withdrawn, for that reason.

6. Rejection of claim 1 under 1st § of '112 -- other features

The same remarks made above apply to all the other elements the examiners say should be separated.

7. Rejection of claims 2-30 under 1st § of '112, sect.4a of the O/A

The rejection of the rest of the claims derives from the error regarding claim 1, as described above. Although the O/A rejects all the claims, section 4a of the O/A gives no reasons for rejecting claims 2-30 beyond the reasons given for rejecting claim 1. In response, we request that the rejection of claims 2-30 be withdrawn, for the same reasons we requested that the rejection of claim 1 be withdrawn.

8. Rejection of claim 1 under 1st § of '112, sect.4b of the O/A

The rejection of claim 1 here is based on the examiners' assertion that, in order for an apparatus to be regarded as falling within the scope of claim 1, the apparatus must have two sensors.

The examiners say that claim 1 is limited to the two sensors being separate and distinct, and therefore an apparatus in which the two sensors are combined does not fall within the scope of claim 1.

We state again that the examiners have erred in their view that claim 1 contains a limitation to the two sensors being separate and distinct.

In order for an apparatus truly to fall within the scope of claim 1, that apparatus must have a rad-port-thermal-unit which must include a coolant-temperature-sensor (clause [9]), and the apparatus must have a swirl-vane-thermal-unit which must include a coolant-temperature-sensor (clauses [19][20]). But there is no limitation expressed or implied in claim 1 to the effect that the two coolant-temperature-sensors mentioned one in clause [9] and the other in clause [20] must be physically or structurally separate and distinct from each other. Nor is there any limitation to the effect that the two sensors must be combined. Whether they are separate or combined is simply not mentioned in claim 1.

Incidentally, likewise, the material of the sensors is not mentioned as a limitation in claim 1. So, likewise, our omission of a description of the material is not grounds for a rejection under 1st § of '112.

An apparatus is covered by clause [9] if it has a rad-port-thermal-unit which includes a coolant-temperature-sensor, and it is covered by clauses [19],[20] if it has a swirl-vane-thermal-unit which includes a coolant-temperature-sensor. Those words, exactly as expressed in the claim, read onto the apparatus depicted in Figs.1-4f. Simply for that reason, the rejection of claim 1 under the 1st § of '112 must be withdrawn.

The examiners have erred in asserting that claim 1 is limited in its scope to apparatuses in which our clause [9] sensor is structurally separate and distinct from our clause [20] sensor.

9. Rejection of claim 20 under 1st § of '112, sect.4b of the O/A

Although the O/A rejects both claims 1 and 20, section 4b of the O/A presents reasons only for rejecting claim 1. The O/A expresses no reasons for rejecting claim 20, beyond the reasons used for rejecting claim 1. In response, we request that the rejection of claim 20 be withdrawn, for the same reasons we requested that the rejection of claim 1 be withdrawn.

10. Rejection of claim 3 under 1st § of '112, sect.4c of the O/A

Again, this rejection depends on the erroneous assertion of the presence in claim 3 of a limitation to the drivers being distinctly separate. That assertion being erroneous, we request that the rejection of claim 3 be withdrawn.

11. Rejection of claim 6 under 1st § of '112, sect.4d of the O/A

Once again, this rejection depends on the erroneous assertion of the presence in claim 6 of a limitation to the drivers being distinct and separate.

Claim 6 reads onto the embodiment depicted in Figs.1-4f. Therefore, simply for that reason, the rejection of claim 6 under 1st § of '112 has no basis, and must be withdrawn.

12. Rejection of claims 2,30 under 2nd § of '112, sect.7 of the O/A

Claim 1 is limited by the feature that the mentioned elements are located *inside* the pump chamber. The examiners state that the limitations of claim 1 suggest that the elements are entirely inside the pumping-chamber. We have to say that the examiners have erred in making this suggestion. Clearly, there is no expressed limitation to the elements being "entirely" located inside the chamber. And we cannot see any basis whatever for the notion that such a limitation is inherently implied by claim 1.

The examiners have erred in construing the word *inside*, in clause [23] of claim 1, as if it were preceded by the word *entirely*. If the examiners were to decide to continue the 2nd of '112 rejection of claim 2, we would request an explanation as to how/why the examiners have inferred that limitation.

Claim 2, quite clearly, further qualifies the limitation defined by the term *inside* that appears in claim 1. That is perfectly legitimate claiming practice. We request that this rejection of claim 2 be withdrawn.

As to claim 30, claim 30 is simply an example of a dependent claim which further limits the scope of the claim from which it depends. We cannot see how the skilled persons could or might find the scope of claim 30 unclear.

If the examiners were to decide to continue the 2nd. S rejection of these claims, we would request that the examiners depict respective examples of apparatuses regarding which the skilled design engineer would be unable to determine, with reasonable certainty, whether the apparatus does or does not fall within the scope of the claim.

13. Rejection of claim 10 under 2nd S of '112, sect.8 of the O/A

Claim 10 has been amended in view of the examiners' comments.

14. This patent application being now in all respects in order for allowance, we look forward to being notified to that effect.

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Attached:

Amended claims (8 pages)